

REMARKS/ARGUMENTS

The Office Action notes that claims 1-22 are pending in the application. By this amendment, claims 1, 3, 6, 8, 11, 13, 17, 18, and 20 have been amended and new claims 23-34 have been added. The amendments to claims 1, 3, 6, 8, 11, 13, 17, 18, and 20 were made to correct typographical errors and/or clarify the language used in the claims and are fully supported by the Specification and do not add any new matter to the application. New claims 23-34 are also fully supported by the Specification and do not add any new matter to the application. Therefore, claims 1-34 are currently pending in the application.

In the Office Action, the Examiner: (1) objected to claim 1; (2) rejected claims 1-4, 6-9, 11, and 13-22 under 35 USC §102(b); and (3) rejected claims 10 and 12 under 35 USC §103(a). The Office Action notes that claim 5 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Applicant responds to the Examiner's objections and rejections below.

Objection to Claim 1

The Examiner objected to claim 1 because the term "and attachment" in the last line of the claim should be "an attachment." Applicant has amended claim 1 accordingly.

Claim Rejections - 35 USC §102

The Examiner rejected claims 1-4, 6-9, 11, and 13-22 under 35 USC §102(b) as being anticipated by Davis. Applicant respectfully submits that claims 1-4, 6-9, 11, and 13-22 are not anticipated by Davis.

As to claim 1, Davis does not disclose a common inner wall that separates a first and second annular chamber where the common inner wall includes "a central bore for receiving an

attachment to a drive shaft” as recited in claim 1. In Davis, the common inner wall 48 that separates the first annular chamber 44 and the second annular chamber 46 does not have a central bore for receiving an attachment to a drive shaft. Therefore, Applicant submits that claim 1 is not anticipated by Davis.

Claims 2-4, 6-9, 11, and 13 are dependent on claim 1, therefore, for the reasons stated above, claims 2-4, 6-9, 11, and 13 are also not anticipated by Davis.

In addition, as to claim 2, Davis also does not disclose “an RPM governor in said first chamber and in said second chamber” as recited in claim 2. In Davis, the RPM governor (the resilient o-ring 60) is in first annular chamber 44. There is no RPM governor in the second annular chamber 46.

As to claim 3, since Davis does not disclose an RPM governor in the second annular chamber 46, Davis could not disclose an RPM governor in the second annular chamber 46 that has the elements recited in claim 3. Furthermore, Davis also does not disclose “at least one spiraling wall barrier extending from the outer portion of each annular chamber” or “a valve o-ring within each annular chamber” as recited in claim 3. The outer portion of the first annular chamber 44 in Davis is the common inner wall 48 and does not have a spiraling wall barrier extending from it. In addition, as stated above, the resilient o-ring 60 disclosed in Davis is located in the first annular chamber 44. However, there is no o-ring in the second annular chamber 46. The alleged two o-rings identified in the Office Action (60A and 60B) are actually the same o-ring shown in two different embodiments of the invention. However, in both embodiments, the o-rings (60A and 60B) are located in the first annular chamber 44 (see column 5, line 40-column 6, line 6).

As to claim 6, Davis also does not disclose a front wall or a front interior surface that are “grooved for fitting a first perforated barrier” and a back wall or a back interior surface that are “grooved for fitting a second perforated barrier” as recited in claim 6. First, Davis only discloses one perforated barrier, the common inner wall 48. There is no second perforated barrier disclosed in Davis. Second, Davis does not disclose any grooves for fitting the single perforated barrier 48. In fact, as shown in figures 1 and 2 in Davis, the common inner wall 48 is integral with one half 21 of the turbine rotor and has no groove in which to fit.

As to claim 8, Davis also does not disclose any of the elements recited in claim 8. Davis does not disclose “one or more additional annular chambers and additional spiraling wall barriers located between the two annular chambers.” Davis only discloses first and second annular chambers 44, 46 and does not disclose any additional annular chambers or spiraling wall barriers between these. Furthermore, since Davis does not disclose an additional annular chamber, it cannot disclose “an additional annular perforated barrier” within an additional annular chamber, or a “valve o-ring” within an additional annular chamber.

As to claim 14, Davis does not disclose “a back surface, including at least one second annular channel ending in at least one second arcuate channel ending in at least one first circumferential opening” as recited in claim 14. Davis discloses a rotor body having a front surface 23 and a back surface 21. However, the annular channel in the back surface 21, which forms the first annular chamber 44, does not end in an arcuate channel that in turn ends in a circumferential opening. Therefore, Applicant submits that claim 14 is not anticipated by Davis.

Claims 15 and 16 are dependent on claim 14, therefore, for the reasons stated above, claims 15 and 16 are also not anticipated by Davis.

In addition, as to claim 15, Davis also does not disclose “a first groove in the first annular chamber for fitting a first perforated barrier, and a second groove in the second annular chamber for fitting a second perforated barrier” as recited in claim 15. First, Davis only discloses one perforated barrier, common inner wall 48. There is no second perforated barrier. Second, there are no grooves in either annular chamber 44, 46 in Davis for fitting a perforated barrier, the single perforated barrier 48 in Davis is integral to the rotor body.

As to claim 16, Davis also does not disclose “a second perforated barrier” or “a second valve o-ring” as recited in claim 16. As stated above, Davis only discloses one perforated barrier, common inner wall 48. In addition, Davis only discloses one valve o-ring, o-ring 60.

As to claim 17, Davis does not disclose: (1) a rotor body having “a front wall and a back wall adapted for fitting with an inner wall”; (2) “at least one arcuate chamber radiating from the outer portion of each annular chamber”; or (3) “a valve o-ring within each annular chamber” as recited in claim 17. In Davis, the rotor body disclosed includes a front wall 23 and a back wall 21, but does not disclose an inner wall that fits with these front and back walls. In addition, as discussed above, Davis does not disclose any arcuate chambers radiating from the outer portion of the first annular chamber 44. Finally, as discussed above, Davis does not disclose an o-ring within the second annular chamber 46. Therefore, Applicant submits that claim 17 is not anticipated by Davis.

As to claim 18, Davis does not disclose “an air passage in each chamber” that ends “in tangential nozzles in said outer wall of the rotor” as recited in claim 18. In Davis, the only tangential nozzles 52 that are in the outer wall of the rotor 20 are at the periphery of the second annular chamber 46. There are no tangential nozzles near the first annular chamber 44 and the

first annular chamber does not even extend to the outer wall of the rotor 20. Therefore, Applicant submits that claim 18 is not anticipated by Davis.

Claims 19 and 20 are dependent on claim 18, therefore, for the reasons stated above, claims 19 and 20 are also not anticipated by Davis.

In addition, as to claim 20, Davis also does not disclose “a resilient sealing means located in each said annular chamber” as recited in claim 20. As discussed above, Davis only discloses a resilient o-ring 60 in the first annular chamber 44. There is no resilient sealing means disclosed in the second annular chamber 46.

As to claim 21, Davis does not disclose a “means for generating torque in a first chamber of said body” and a “means for generating torque in a second chamber of said body” as recited in claim 21. As stated above, there are two chambers disclosed in Davis, first annular chamber 44 and second annular chamber 46. In Davis, the first annular chamber 44 does not have a means for generating torque. Pressurized air enters the first annular chamber 44 through a central bore and exits through radial holes 54 in the common inner wall 48. There is nothing in the first annular chamber 44 that would generate torque. Therefore, Applicant submits that claim 21 is not anticipated by Davis.

Claim 22 is dependent on claim 21, therefore, for the reasons stated above, claim 22 is also not anticipated by Davis.

In addition, Applicant submits that new claims 23-34 are also not anticipated by Davis.

As to claim 23, as discussed above for claim 1, Davis does not disclose a common inner wall that separates the first and second annular chambers that also has a central bore for receiving and attachment to a drive shaft. In addition, Davis does not disclose “a first plurality of tangential peripheral nozzles in communication with the first annular chamber” and “a second

plurality of tangential peripheral nozzles in communication with the second annular chamber” as recited in claim 23. In Davis, the tangential peripheral nozzles 52 disclosed are in communication with the second annular chamber 46. There are no tangential peripheral nozzles disclosed that are in communication with the first annular chamber 44. Therefore, Applicant submits that claim 23 is not anticipated by Davis.

Claims 24-34 are dependent on claim 23, therefore, for the reasons stated above, claims 24-34 are also not anticipated by Davis.

Therefore, Applicant respectfully submits that claims 1-4, 6-9, 11, and 13-34 are allowable over Davis.

Claim Rejections - 35 USC §103

The Examiner rejected claims 10 and 12 under 35 USC §103(a) as being unpatentable over Davis in view of Hanaway. Applicant respectfully submits that claims 10 and 12 are patentable over Davis in view of Hanaway.

Claims 10 and 12 are dependent on claim 3, which is dependent on claim 1. As discussed above for claim 1, Davis does not disclose a common inner wall that separates a first and second annular chamber where the common inner wall includes “a central bore for receiving an attachment to a drive shaft” as recited in claim 1. In addition, Davis does not disclose an RPM governor in the second annular chamber 46, therefore it could not disclose an RPM governor in the second annular chamber 46 that has the elements recited in claim 3. Furthermore, Davis does not disclose “at least one spiraling wall barrier extending from the outer portion of each annular chamber” or “a valve o-ring within each annular chamber” as recited in claim 3. Hanaway also does not disclose these features. Therefore, even if such a combination

of Davis and Hanaway were made, the purported combination still would not disclose all of the elements recited in claims 10 and 12.

In addition, as to claim 10, neither Davis nor Hanaway disclose constructing all of the components of plastic, as recited in claim 10. Contrary to Examiner's allegations, Hanaway does not disclose constructing all of the components of plastic. The only components constructed of plastic in Hanaway are the cap 39 (which has a shoulder 47) and the hose from the air source. There is no mention in Hanaway of any other component, such as the upper die shoe, the lower die shoe, the guide post, the cage, the bearings, etc. being made of plastic.

As to claim 12, Davis also does not disclose a rotor having a front wall and a back wall attached to an inner wall, as recited in claim 12. As discussed above, Davis only discloses a front wall 23 and a back wall 21 and does not disclose an inner wall that these front and back walls are attached to. Hanaway also does not disclose these elements.

Finally, Applicant submits that it would not have been obvious to one having ordinary skill in the art to combine Davis and Hanaway. Davis is directed to high torque turbine rotors for hand held pneumatic tools. Hanaway is directed to die sets and has absolutely nothing to do with high torque turbine rotors. Therefore, it would not have been obvious to someone skilled in the art of high torque turbine rotors to combine the rotor disclosed in Davis with the die set disclosed in Hanaway as they are completely unrelated.

Therefore, Applicant respectfully submits that claims 10 and 12 are allowable over Davis in view of Hanaway.

Conclusion

In view of the aforesaid, Applicant respectfully submits that claims 1-34 are in condition for allowance and a Notice of Allowance for these claims is respectfully requested.

Respectfully submitted,

Dated: 8/30/04

By: Gregory M. Smith
Gregory M. Smith
Reg. No. 43,136
Attorney for Applicant
Wildman, Harrold, Allen & Dixon LLP
225 West Wacker Drive
Suite 3000
Chicago, IL 60606
P: 312-201-2825
F: 312-416-4610
gsmith@wildmanharrold.com

CERTIFICATE OF EXPRESS MAIL

"Express Mail" mailing label number: EV265503118US
Date of Deposit: 8-30-04
I hereby certify that this paper or fee is being deposited with the
United States Postal Service "Express Mail Post Office to
Addressee" on the date indicated above and is addressed to
the Commissioner for Patents, P.O. Box 1450 Alexandria, VA
92919-1450 Valeria Rodriguez